

New No. Sectt. 1 (1)-1—Old No. 12407
(1) Number of pages 8
(2) Date of repair 26.2.70
(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Rev DEPARTMENT

G.O. No. B.P. No.	2072	Press Mis.
Dated	2.9.1876	196

Not to be folded or roughly handled

No. 53. Read the following letter from Colonel C. H. DICKENS, R.A., Secretary to the Government of India, Public Works Department, (Account—Irrigation,) to Major-General G. W. WALKER, R.E., Secretary to the Government of Madras, Public Works Department, (Irrigation Branch,) dated Simla, 29th May 1876, No. 218 A—I:—

I AM directed to acknowledge receipt of your letter, No. 697, dated 17th March 1876, furnishing further information in connection with the application made by the Government of Madras for an increase to the ordinary grant for irrigation works, and in reply to say that the representation made will receive due consideration in the distribution of the allotments for 1877-78. But I am to point out that the distribution and appropriation of the grant for 1876-77 would be irrespective of unforeseen and exceptional needs, the guide for what would be allowed for the year following.

2. In order to admit of a decision on the sum that should be allowed for special purposes, the Government of India will require to be furnished with the particulars called for in Public Works Department letter, No. 214 A—I, dated 21st July 1875, regarding the several groups of tanks and the revenue dependant on their efficient maintenance so as to ensure that the grant is assigned with due regard to the requirements of existing works and of unforeseen and unexceptional works. It is observed that one of the items comprised in the amount which the Government of Madras consider should be fixed as the normal grant for irrigation works ranges from three lakhs to one lakh per annum for works classed as non-irrigation. Before this sum can be allowed from Imperial Funds, the Governor-General in Council has no alternative with due consideration to the state of the finances, but to ask that the works to which this sum is to be devoted should be specified, and the liability of Imperial Funds to bear the charge made clear. The works probably consist of embankment and drainage works, the charge for which is apparently one that should be provided for from Provincial and Local Funds. On this point I am to invite the attention of the Government of Madras to the orders issued on the subject as quoted in the margin.

3. The promise made that the information required in regard to customary labor has been noted. But I am to ask that the Revenue Department may be urged to hasten the submission of the report on the subject which was promised more than three and a half years ago.

No. 54. ORDER THEREON, 2nd August 1876, No. 1,972.

IRRIGATION, No. 9.
Account.

ORDERED that the foregoing letter be communicated to the Financial Department, with reference to paragraph 3 of G.O., No. 2,840, of the 2nd October 1875, and to the Revenue Department and other departments and officers concerned

in connection with paragraph 4 of the same order. Also in connection with customary labor, the attention of the Revenue Department will be drawn to the orders as per margin, and an early communication for the information of the Government of India, of the conclusions which may be arrived at will be requested. It must, however, be observed that the obligation of customary labor for the partial repair of the old irrigation works of this Presidency can in no way affect the necessary expenditure on the descriptions of work for which an increase of the ordinary grant has been solicited.

2. The Government observe that the most pressing requirement of the irrigation works of this Presidency generally, apart from those large works or schemes which have to be separately dealt with, is the provision of adequate means of disposing of surplus and next, though in a minor degree, the supersession of irregular methods, such as cuts in the bunds of tanks, of drawing off water for irrigation, by the provision of suitable distribution sluices. This subject must be again pressed on the attention of the Government of India, and in order that this may be done effectually it is essential that the most complete information which can be obtained should be brought forward in the reply to the letter above recorded, which will be transmitted in due course. The numerous estimates for the repair and improvement of irrigation works which have been reviewed and sanctioned during the past two years, afford very good data for exhibiting the former and intended circumstances of these works in a clear manner, and for showing how important are the measures which are being taken, and which it is desired greatly to extend and hasten, for ensuring their safety and efficiency. The Chief Engineer for Irrigation will, therefore, arrange to have such information got ready as soon as possible. It will be desirable that this subject should be laid before the Government of India distinctly on its merits, and independently of the question of the increase of the Ordinary grant for other purposes, and this will be done directly the necessary data for a further and more complete representation of the circumstances than has hitherto been furnished are forthcoming.

3. The proposed normal grant of three lakhs to one lakh for Agricultural works classed as non-irrigation is intended principally for—

1. River Conservancy.
2. Flood embankments.
3. Drainage.
4. Statistical information and data.

The proposed grant even if taken at the highest figure named is of course but a very small sum if considered in reference to the extent of this Presidency, and it will manifestly admit of the carrying into execution of only a few well considered and demonstrably highly necessary improvements. It may be noticed with regard to—

1. *River Conservancy* that, as a rule, the many rivers of this Presidency must be left to take their natural course without interference, and only when Government interests of importance are concerned or when moderate outlay will secure great proportional benefits can general conservancy be attempted. On the other hand those rivers which are Deltaic in their circumstances, and from which the spill in ordinary

or high freshes leaves the regular river channel and finds other outlets, expenditure on conservancy to a greater or less extent appears to be essential to the avoidance of waste of money in other directions, and this expenditure will necessarily come under Original Works or Repairs according to the description and character of the work to be done. For such work as should be treated as Repairs no special provision by way of increase of the ordinary grant is requested, but for Original works of this kind the Government have at present no funds at their disposal, and must remain without any until in the grant the necessary provision may be made.

2. *Flood embankments.*—The interests involved are numerous. There are to be protected, first, irrigated lands and the works connected with them; secondly, lands under dry cultivation; thirdly, the communications of the country generally; fourthly, villages. The cultivated lands again belong to Government, to Zemindars, to Inamdars or other private individuals. The roads are made and maintained from Provincial and Local Funds. In the majority of cases it would apparently be impracticable to distribute the incidence of the charge among all these different interests, and even were this done the Government would frequently be powerless to exact contributions from Zemindars and other persons. Again, the assessment of the value of protective works to the roads and communications, including railways, of a tract of country is a very difficult matter, though as these communications multiply, as they are doing in all those parts of the country in which expenditure of importance on embankments is likely to be proposed, the need and value of protection will be readily understood. Practically what has to be considered is whether the Government interests concerned render expenditure expedient. There is the further consideration that in the majority of cases schemes of flood embankment are proposals for rendering old systems of embankment, which have been demonstrated to be inefficient, secure. The Government however consider that there is no valid reason for omitting to show in all cases as clearly as may be practicable what are the nature and extent of the several interests involved, and to exhibit these on a map, showing the tract of country to be protected, the extent and position of irrigated and unirrigated lands, the position and extent of all considerable Zemindaries, the roads, railways, &c., will present no difficulty if it be understood from the first that such information is in its degree as requisite as the determination of flood levels and the assessment of the levels of the country to be protected. Whenever also the Government lands bear a considerable proportion to the whole area it must be clearly stated whether the embankments proposed are throughout their intended length required independently of any special protection of Zemindary lands. Small private holdings, as Inams, &c., cannot be exhibited on the map, but it may and should be stated thereon what is their extent in the gross, and information on this point can be obtained from the Revenue Officers. It will then rest with the Government to decide whether in any particular case it is desirable or necessary that public bodies or private persons whose properties will be benefited should be called upon to contribute to the cost of the protective works.

3. *Drainage.*—Special information has been called for with reference to the circumstances of the drainage of villages in the Godavery Delta, and it will be

determined in due course from what funds, other than Imperial, any work not rendered necessary by the irrigation works or the development of irrigation, shown to be required, is to be provided for village drainage there and elsewhere is, however, not by any means the chief work of this kind which will have to be carried out. Drainage works ordinarily are required not to secure wholly or chiefly sanitary advantages, but in the interest of agriculture both irrigated and unirrigated. The need of drainage is naturally more especially felt in the alluvial lands which have been formed by the great rivers, and is more or less requisite to the efficient cultivation of the land with either wet or dry crops. Hitherto the proper incidence of charges on account of the drainage of land for agricultural purposes has not been sufficiently considered, and as a result the drainage works on any considerable scale hitherto carried out, such as the main drainage of the Godavery Delta, have been charged exclusively to the Capital Account of the Delta irrigation works. It remains to be decided how such charges should be distributed. The subject will be remitted to the Revenue Department with a view to the early consideration of the best way of determining the proper incidence of cost of drainage works undertaken in the interests of agriculture. It is to be observed that the presence of Zemindary on proprietary estates in any particular tract of country will not necessarily affect the question. No special works will of course be undertaken for the benefit of such estates except at the expense of the proprietors, and the main drainage, although it may affect them beneficially indirectly, will be undertaken only when the Government interests are of sufficient importance to warrant the outlay shown to be necessary.

4. *Statistics.*—The expenditure under this head will never be large, but it nevertheless is of much importance that it should be understood definitely by all District Officers that they are expected to work on proper data, and that where these are deficient or unsatisfactory, measures should be brought forward for sanction for making them sufficiently complete for practical purposes. Among the more important subjects needing careful attention and investigation are—

- (1.) The quantities of water required and used for irrigation, respectively, with the determination of the proper quantity required for given conditions, such as soil, climate, subsoil, water level, &c.
- (2.) The flood discharges of large rivers to those of ordinary rivers, and the economical and efficient arrangement of attachment basins of different areas, from those of large rivers to those of ordinary rivers. Upon such information must depend the economical and efficient arrangement of drainage works and surplus works, &c.
- (3.) The discharges during the rainy period of rivers and streams of moderate size or having moderate drainage, compared with the recorded rainfall of the same period within or in the immediate neighbourhood of the basin concerned. Upon such information and on reasonable deductions therefrom, combined with annual records of rainfall, will depend the determination of the area which the drainage from a basin of any given size may be expected to irrigate.

- (4.) The settlement of co-efficients of discharge over surplus or regulating weirs under different ordinary conditions, form of crest, and of its level in respect of channel of approach and of outfall. There is more known on this point than at present, and arrangements must continue to be made on a very imperfect data; and there are several

other subjects, the difficulty of dealing with data than have yet been made available who have endeavored to do their work of using materials when not specially come under this head of expenditure. The best use of the materials, available needs it is thought no demonstration.

4. The grouping of irrigation works

Circular No. 76, dated 26th June 1876.

will, it is anticipated, lead to the completion in moderate time. The progress made hitherto with this grouping generally has been from several causes less rapid than is satisfactory, and the most prominent of these causes has been the necessity for saving revenue and rendering cultivation practicable by the immediate repair of the large numbers of works, which were severely injured by the storms of May and October 1872, and October, November, 1874. At the same time the Government are assured that the importance of the subject has not been lost sight of, neither have its requirements been ignored. As far as practicable the connection of individual works with other works has been noticed, and the requirements have been considered in this connection, and so far as the current and pressing demand for repairs in all directions would admit, attention has been given to tanks by groups. It has not been possible under the circumstances to insist upon the complete observance of the rules laid down for the treatment of groups of tanks, but attention to them has been required whenever the public interests would allow of systematic treatment. It is to be observed in connection with this grouping of irrigation works that its completion will not of itself indicate, as seems to be supposed by the Government of India, what amount it is necessary to spend on the maintenance and improvement of such works. The main object of the grouping is to ensure proper and systematic management with due consideration of the real circumstances of the works. The number of tanks in the several districts of this Presidency, the irrigated area under them, and revenue dependent upon them, have already been given in the Proceedings of the Government of India, submitted to the Government of India, the 14th October 1875, No. 2,931, which effect no essential alteration of the conditions to be satisfied. It has already been arranged to expend annually upon Repairs proper about 8 per cent. of the revenue, and the grants for Repairs in 1875-76 and for the current year approximate to that percentage. To make this expenditure, however, really beneficial to its full extent, it is essential that concurrently the improvements required to render the tanks safe, and which repair alone cannot possibly do should be carried out, and these improvements will be unattainable until the Minor New Works grant is materially increased.

Total number ...	...	...	38,982
" acreage ...	...	...	4,583,88
" revenue ...	...	...	192,23,4

the 14th October 1875, No. 2,931, which effect no essential alteration of the conditions to be satisfied. It has already been arranged to expend annually upon Repairs proper about 8 per cent. of the revenue, and the grants for Repairs in 1875-76 and for the current year approximate to that percentage. To make this expenditure, however, really beneficial to its full extent, it is essential that concurrently the improvements required to render the tanks safe, and which repair alone cannot possibly do should be carried out, and these improvements will be unattainable until the Minor New Works grant is materially increased.

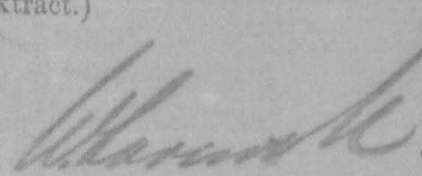
5. Ordered that a copy of these Proceedings of the Government of India, in anticipation

be forwarded for the information further information being furnished on

Proceedings of the Madras Government, Public Works Department,
2nd August 1876. No. 1,972.

the subject of customary labor, incidence of drainage charges and of the grants required
for improvements (Minor New Works) New Works, Non-irrigation.

(True Extract.)


Colonel,
Offg. Under Secy. to Govt., P.W.D.

To the Financial Department.

- „ Revenue
- „ Chief Engineer for Irrigation.
- „ District Engineers.
- „ Sanitary Commissioner.
- „ Examiner of Public Works Accounts
- „ Consulting Engineer for Railways.

Exd. W. H. French.

10 Spare Copies

sent to the office

2072
4

12/3/94

M 2/9 No 2072

ordered to be
communicated to the
Board of Rev.

It is observed that the
question of customary
labor is under the
consideration of the

The Board of Rev. will
report on the subject of para
3 of this GO. The question of
village drainage was re-
mitted for consideration
& report in para 4 of the
GO 2^d Oct 1875 No. 2846a

2 September 1876

14 To the Board of Rev. No. 2846a

The Customary Labor
question is in circulation

12 Sep 76 A 2^d Sep.

3420
Remains 1876
Govt. of 1876

PUBLIC WORKS

To
THE FINANCIAL DEPARTMENT,
&c. &c. &c.

Dated August 2nd.

Encl.

Recd. 26 Aug 76 Encl.

G.O. 2nd August 1876, No. 1972.

Chamberlain
J. H. Chamberlain
J. H. Chamberlain
J. H. Chamberlain

AUGUST.
Nos. 53-54.

Mr. W. R.
[Signature]

Increase to the Ordinary Grant for Irriga-
tion Works.—Passing orders on letter from
the Government of India remarking on the
application for an —.

Mr. W. R.
[Signature]

122072-2 September 76-

Dated 196

Not to be folded or roughly handled